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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/691,273
Filing Date: October 22, 2003
Appellant(s): THENTHIRUPERAI, BALAJI S.

Lawrence H. Aaronson (35,818)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07/07/08 appealing from the Office action mailed 11/27/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6894994	Grob	5-2005
7071942	Zaima	7-2006
20020065074	Cohn	5-2002

Application's Background of the Invention (ABI) see application specification, page 3.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1,4-5, 8-17 and 24-25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn et al. ("Cohn") US publication Number 2002/0065074 in view of Grob et al. hereinafter Grob US patent number 6,894,994 B1.

As per claim 1, Cohn teaches a method of streaming multimedia content in a wireless communication system (PDA or cellular phone) comprising:

Receiving, in a server a data network, a request from a mobile device to stream multimedia content to the mobile device from the server, the request being transmitted over a wireless connection and via network entity to the server (see fig 1; par 0012, 0022 and 0026); streaming a portion of the requested multimedia content from the server to the mobile device via the network entity and the wireless connection (fig 1; par 0026); the network entity detecting a termination of the wireless connection during the streaming; and the second entity responsively notifying the server (par 0013; retaining information, the information indicating a point in the multimedia content stream where the termination of the wireless connection occurred; re-establishing the wireless connection; and resuming streaming of the multimedia content based onthe retained information (par 0054, 0082, 0103, 0117-0121 and claims 1,4, and 5).

However, Cohn fails to teach BSC and PDSN. Grob discloses all these features (see Grob fig 6-8; col. 10 line 41 to col. 11 line 50; col. 21 line 10 to col. 22 line 28; in addition Grob teaches the steps of notifying that is part of BSC and PDSN communication

scheme as shown in fig 6-8). It would be obvious to one of ordinary skill in the art at the time of the invention to combine Grob's features with Cohns' system to increase data transmission in Cohn's at any particular moment. One skill artisan at the time of the invention would be motivated to do so to improve and facilitate high data rate, data traffic and wireless packet data communication in the system (see Grob col. 2 lines 2-9).

As per claims 4-5, Cohn teaches retaining an identifier of a mobile device that comprises a point-to-point protocol link identifier, a network address identifier and an Internet protocol address (see par 0041).

As per claims 11-12 and 24-25, Cohn teaches communicating the retained information from the multimedia gateway to an application/content server (see fig 1, abstract and paragraph 0013); resuming streaming of the multimedia content from the server to the mobile device (par 0054, 0082, 0103, 0117-0121 and claims 1,4, and 5), via a multicast router at one of:

The point in the multimedia content stream where the termination of the wireless connection was detected; and a predetermined time period earlier in the multimedia content stream than the point where the termination was detected (par 0054, 0082, 0103, 0117-0121and claims 1,4, and 5).

As per claim 13, Cohn teaches communicating the information from the server to a first multimedia gateway; and storing the information in a database operatively associated with the first multimedia gateway (fig 1, abstract, and par 0013).

As per claim 14, Cohn teaches communicating the stored information from the first multimedia gateway to the server; responsively sending logic resuming streaming of the

multimedia content from the server to one of the fist multimedia gateway and a second multimedia gateway (par 0054, 0082, 0103, 0117-0121) and claims 1,4, and 5); and executing the logic with one of the first multimedia gateway and a second multimedia gateway to resume the multimedia content stream (par 0054, 0082, 0103, 0117-0121 and claims 1,4, and 5).

As per claim 15, Cohn teaches resuming occurs automatically in response to reestablishing the wireless connection (par 0054, 0082, 0103, 0117-0121 and claims 1, 4, and 5).

As per claim 16, Cohn teaches responsively to reestablishing the wireless connection, providing a user with an option to resume streaming of the multimedia content Or cancel streaming of the multimedia content; and resuming streaming of the multimedia content in response to a user indication to resume streaming (par 0054, 0082, 0103, 0117-0121 and claims 1,4 and 5).

As per claims 17 and 26, Cohn teaches a method for streaming multimedia content in a wireless communication system comprising: receiving, via a packet network, a streaming protocol command from a mobile device, the command operating as a request that the multimedia content be streamed to the mobile device from an application/content server coupled with the network (see par 0012 and 0026); streaming at least a portion of the requested multimedia content from the server to the mobile device via a multimedia gateway (0026); detecting a termination of the wireless connection during streaming; retaining information in one of the multimedia gateway and the application/content server, the information indicating a point in the multimedia

content where the termination of the wireless connection occurred; re-establishing the wireless connection; and resuming streaming of the multimedia content based on the retained information (par 0(554, 0082, 0103, 0117-0121 and claims 1,4, and 5). Cohn also teaches sending the retained information to an entity in the network (see fig 1). Cohn fails to teach BSC and PDSN. Grob discloses all these features (see Grob fig 6-8; col. 10 line 41 to col. 11 line 50; col. 21 line 10 to col. 22 line 28; in addition Grob teaches the steps of notifying that is part of BSC and PDSN communication scheme as shown in fig 6-8). It would be obvious to one of ordinary skill in the art at the time of the invention to combine Grob's features with Cohns' system to increase data transmission in Cohn's at any particular moment. One skill artisan at the time of the invention would be motivated to do so to improve and facilitate high data rate, data traffic and wireless packet data communication in the system (see Grob col. 2 lines 2-9).

Claims 8-10 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn in view of Grob et al. hereinafter ("Grob") US patent Number 6,894,994 BI.

As per claims 8-10, Cohn teaches communicating the multimedia content from the server to a multimedia gateway via a multicast router (see fig 1, abstract and paragraph 0013). However, Cohn fails to teach communicating the multimedia content from the multimedia gateway to a home agent device; communicating the multimedia content from the home agent device to a packet data serving node (PDSN); communicating the multimedia Content from PDSN to a base station controller (BSC); communicating the multimedia content from the BSC to a base transceiver station (BTS); and communicating the multimedia content from the BTS to the mobile device. Furthermore,

Cohn fails to teach determining, at a base station controller, that a number of bad communication frames received from the mobile device is greater that a threshold level; wherein the BSC responds to the determining by notifying one of the multimedia gateway and an application/content server that termination of the wireless connection has occurred; furthermore, Cohn fails to teach determining, at a base station controller, that the wireless connection cannot be handed off fro a first (BTS) to a second (BTS); wherein the BSC responds to the determining by notifying the server that termination of the wireless connection has occurred. Grob discloses all these features (see Grob fig 6-8; col. 10 line 41 to col. 11 line 50; col. 21 line 10 to col. 22 line 28; the steps of notifying is part BSC and PDSN communication scheme see fig 6-8). It would be obvious to one of ordinary skill in the art at the time of the invention to combine Grob's features with Cohns' system to increase data transmission in Cohn's at any particular moment. One skill artisan at the time of the invention would be motivated to do so to improve and facilitate high data rate, data traffic and wireless packet data communication in the system (see Grob col. 2 lines 2-9).

As per claim 27, Cohn teaches a multimedia gateway included in a data network having a set of instructions stored therein, that when executed, the instructions provide for: receiving a streaming protocol command from a mobile device, the command operating as a request that the multimedia content be streamed to the mobile device from a server coupled with the network (see par 0012 and 0026); streaming at least a portion of the requested multimedia content from the application/content server to the mobile device (0026); receiving a notification that a termination of the wireless connection occurred

during the streaming and communicating the notification to the server are inherent in Cohn because it precedes the steps of resumption of file transmission and re-establishing connection (see par 0054 and 0082); receiving information indicating a point in the multimedia content stream where the termination of the wireless connection occurred and an identifier of the mobile device (resuming from the last successful point par 0054 and 0082); stored the received information in a database; reestablishing connection; sending the received information to the server; receiving logic from the server and executing the received logic to resume streaming based on information received (par 0054, 0082, 0103, 0117-0121) and claims 1,4, and 5). Cohn does not teach PDSN. However, Grob discloses a PDSN see fig 5-6. It would have been obvious to one ordinary skill in the art at the time of the invention to combine Gob's PDSN feature with Cohn's system so it would provide packet data service to the access terminal. One skill artisan would be motivated to do so because PDSN would facilitate network access point such as PPP and IP protocols (see Gob col. 9 lines 52- 65).

Claims 2-3 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn and Grob in view of Zaima et al. ("Zaima") US patent number 7,071,942 B2.

As per claims 2 and 22, Cohn and Grob do not teach information is retained in an extensible markup language tag attribute. Zaima teaches data and information in XML tag attribute (see fig 3; col. 4 lines 13-26; col. 5 lines 30-51; col. 17 lines 21-23). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Zaima's XML to Grob and Cohn's multimedia system because XML data is

versatile and user's friendly (see col. 25 line 65 to col. 26 line 3). One skill artisan at the time of the invention would be motivated to do so because tagging information in an XML it would allow a user to be easily informed of the content of a data by reading the XML data (see Zaima c0ol 4 lines 22-26).

As per claims 3 and 23, Cohn teaches retaining information contains a time-stamp associated with a point in the multimedia content stream where termination of the wireless connection occurred (see Cohn Para 0054). However, Cohn and Grob fail to teach SMLI. Zaima discloses a SMIL (see Zaima col. 17 lines 17-47). It must be noted that SMIL data is a markup tagging language in which an still image, a time-varying image, position of music data are written as XML subsets (see Zaima col. 17 lines 21-23). Therefore, the motivation recited in claim 2 above is applied to this claim as well.

Claims 6-7 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn and Grob in view of Applicant's background of the invention.

As per claim 6-7 and 18, Cohn and Grob fail to recite a request and streaming in accordance to RTSP. ABI discloses this feature (see page 3 of ABI, first paragraph). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a RTSP in Grob's and Cohn's system to stream any size media clip in order to save memory space.

As per claims 19-21, Cohn teaches communicating the multimedia content from host to a multimedia gateway via a multicast router (see fig 1, abstract and paragraph 0013). Cohn fails to teach communicating the multimedia content from the multimedia gateway to a home agent device; communicating the multimedia content from the home agent

device to a packet data serving node (PDSN); communicating the multimedia content from PDSN to a base station controller (BSC); communicating the multimedia content from the BSC to a base transceiver station (BTS); and communicating the multimedia content from the BTS to the mobile device. Furthermore, Cohn fails to teach determining, at a base station controller, that a number of bad communication frames received from the mobile device is greater that a threshold level; wherein the BSC responds to the determining by notifying one of the multimedia gateway and an application/content server that termination of the wireless connection has occurred; furthermore, Cohn fails to teach determining, at a base station controller, that the wireless connection cannot be handed off fro a first (BTS) to a second (BTS); wherein the BSC responds to the determining by notifying the server that termination of the wireless connection has occurred. Grob discloses all these features (see Grob fig 6-8; col. 10 line 41 to col. 11 line 50; col. 21 line 10to col. 22 line 28; the steps of notifying is part BSC and PDSN communication scheme see fig 6-8). It would be obvious to one of ordinary skill in the art at the time of the invention to combine Grob's features with Cohns' system to increase data transmission in Cohn's at any particular moment. One skill artisan at the time of the invention would be motivated to do so to improve and facilitate high data rate, data traffic and wireless packet data communication in the system (see Grob col. 2 lines 2-9). Furthermore, Cohn and Grob fail to recite a request and streaming in accordance to RTSP. ABI discloses this feature (see page 3 of ABI, first paragraph). It would have been obvious to one of ordinary skill in the art at the time

of the invention to incorporate a RTSP in Grob and Cohn's system to stream any size media clip in order to save memory space.

(10) Response to Argument

With regards to claims 1, 7, and 27, appellants argue on page 6, second paragraph, page 11 part b) of the appeal brief, that Cohn does not teach streaming multimedia. According to Newton's Telecom Dictionary, by Harry Newton 14th updated & expanded edition, page 681, Bill Gates of Microsoft defines streaming media as video coming to you in packets over the Internet. Examiner submits that Cohn teaches streaming multimedia (paragraphs 0026 and 0055, a customer could elect to have content delivered to a mobile Internet capable device and review it at their leisure or have it streamed in real time i.e no perceived delay; process a data the moment it enters the computer). Examiner believes that Cohn teaches this limitation.

Appellants also argued that Grob is deficient of BSC and PDSN.

Examiner submits that Grob teaches those features (see Grob fig 6-8; col. 10 line 41 to col. 11 line 50; col. 21 line 10 to col. 22 line 28; in addition Grob teaches the steps of notifying that is part of BSC and PDSN communication scheme as shown in fig 6-8). It must be noted that the functionality of these elements do not change. There is a specific definition they have to adhere to. As a result, examiner believes that the combination of Cohn with Grob meets the limitations of appellants BSC and PSDN, which are nothing but a network entity as defined in the claim.

With regard to claim 27, Appellants further argue that Cohn does not teach receiving logic from a server.

Examiner submits that this term is broad. Logic can be interpreted to be anything. The Newton dictionary defines logic on page 424 as application of mathematical analysis and deductive reasoning to propositions that may or may not be true or false. Therefore, Examiner has interpreted logic to be part of the BRE's scheme that complies to the specification of retransmitting packet or resuming packet transmission if an error occurs. As indicated in paragraph 0054 and 0082, the media player should support the resumption. In other words, the logic in the claim is just an agreement or communication between client and server to accomplish a task. I believe Cohn teaches the logic discussed by appellants in claim 27.

Furthermore, In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Grob at col. 2 lines 2-9, broadly defines the advantages of using a network entity (such as PDSN and BSC). Although these particular items were not mentioned, however, they are part of the Internet communication elements described in Grob summary of the background of the invention. It must be noted that these elements were further discussed in Grob fig 6-8, col 10 line 41 to col. 11 line 50.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Frantz B. Jean/

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